REMARKS

Favorable consideration of this Application, in light of the following discussion, is respectfully requested.

Claims 1-18 remain pending in the present Application. No new matter has been added.

By way of summary, the Official Action presents the following issues: Claims 1-18 stand rejected under 35 U.S.C. 103 as being unpatentable over Khan et al. (U.S. Patent No. 6,400,954, hereinafter Khan), in view of Mayrand et al. (U.S. Patent No. 5,504,939, hereinafter Mayrand), further in view of Linderborg et al. (U.S. Patent No. 6,834,193, hereinafter Linderborg).

REJECTION UNDER 35 U.S.C. § 103

The outstanding Official Action has rejected Claims 1-18 under 35 U.S.C. 103 as being unpatentable over Khan, in view of Mayrand, further in view of Linderborg. The Official Action cites Khan as disclosing all of the Applicants' claimed features, with the exception of providing a required communication quality value from a new terminal, and, a determination unit for determining acceptances/refusal of a connection for a new terminal based on signal quality. However, the Official Action has cited Mayrand and Linderborg as describing these more detailed aspects of the Applicants' claims and states that it would have been obvious to one skilled in the art at the time the invention was made to combine the cited references for arriving at the Applicants' claims. Applicants respectfully traverse the rejection.

By way of background, in contrast to circuit switching type radio communication systems, packet switching type system enable a plurality of transmitting terminals to share a communication channel. In such systems, as new terminals are added to communication

channels, the quality of communication is decreased based upon the resources of the system and/or channel. In order to avoid such a decrease in communication quality, the number of terminals, which share a channel, may be limited, or, the available resources (i.e., band width to a specific terminal) may be decreased to account for the addition of new terminals. However, such schemes are undesirable as they limit communication quality and throughput for a given channel. Furthermore, schemes exist wherein interference of transmitting terminals is gauged prior to the acceptance of a new terminal transmission. However, this scheme also is subject to variation in throughput and/or signal quality.[1]

In light of at least the above deficiency in the art, the present invention is provided. With at least the above objects in mind, a brief comparison of the claimed invention, in view of the cited references, is believed to be in order.

Applicants' Claim 1 recites, *inter alia*, an acceptance control apparatus, including:

> . . . said determination part obtains an available communication quality value from the required communication quality values of the terminal currently connected held by said request quality holding part and a maximum permissible communication quality value of said radio communication system, and, when said available communication quality value satisfies the required communication quality value of the new terminal, said determination part accepts the connection for said new terminal. (emphasis added)

Khan describes a system and associated method of mode selection based on access network capacity. As shown in Fig. 3 of Khan, for example, at step 40, a new call request is received by the system. A transmission mode is selected by the system based on, for example, the radio channel conditions and throughput requested for the connection. The system also checks, at step 42, whether the access network has sufficient capacity to accommodate the new call. If so, the request is accepted, at step 44, resources are allocated

[1] Application at pages 1-5.

on the access network, and the connection is established using the transmission mode selected in step 40. If sufficient access network resources are not available, resources are released by reducing the information rates of ongoing calls, at step 46. Alternatively, the information rate of the new call is reduced to fit within the remaining capacity of the access network, for example, by changing the initial selected transmission mode to a new transmission mode having a lower information rate.[2]

Mayrand is directed to communication channel selection in cellular radio communication systems. As shown in Fig. 3 of Mayrand, for example, receipt of a communication channel seizure request, at step 21, is followed by a call type determination, at 22. Then, based upon that determination of the call type at 22, communication channel selection, at 23, of a suitable communication channel from the available pool of communication channels 24 occurs. The selected channel is assigned, at 25, and the call is set up for communication.[3] Based upon the result of the comparison of the call with various pre-defined sets of call types, a call type which best represents the complete characteristics of the communication channel seizure request is selected by the system at 22.[4]

As noted in the Official Action, neither Kahn, nor Mayrand, describe Applicants' determination part.[5]

Linderborg describes a system and associated method for processing a traffic channel request in a cellular radio system. The traffic channel request is for the allocation of a new traffic channel, and is provided to a base station controller (BSC1). The traffic channel request is specific to a radio cell (C1), which is served by the base station (BTS1). A traffic channel calculation unit (2) supplies to a comparison unit (5) the number "N" of traffic

[2] Kahn at column 5, lines 14-40.
[3] Mayrand at column 6, lines 21-33.
[4] Mayrand at column 6, line 65 through column 7, line 2.
[5] Official Action of January 27, 2006 at page 3.

channels in use in the cell (C1). The mean values of Quality for the traffic channels of adjacent base stations are retrieved from a memory (4) by the comparison unit (5). Based upon the minimum Quality value, the maximum Quality value, and the maximum number of traffic channels in the cell (C1), the comparison unit (5) informs a channel allocation unit (1) that it is either to allocate a channel or that it is not to allocate a channel.[6] As can be appreciated, the Quality determination of a monitoring unit (3) is relative to adjacent cells of a radio cell (C1).[7]

Conversely, in an exemplary embodiment of the Applicants' invention, a determination unit obtains an available communication quality value from the required communication quality values of the terminals currently connected . . . In this way, the determination unit accepts the connection request of a new terminal when the available communication quality of the request can be accommodated in view of the required communication quality values of the terminals currently connected. As Linderborg describes only determining communication quality of adjacent cells, it in no way discloses, or suggests, determining whether a new communication quality value requested of a new terminal can be accommodated based upon existing required communication quality values of terminals currently connected. Accordingly, the combination of Khan, Mayrand and Linderborg does not disclose, or render obvious, the claimed features recited in independent Claim 1 and any claim depending therefrom. Likewise, As independent Claims 2, 3, and 10-12 recite substantially similar limitations to those discussed above, Applicants respectfully submit that these claims, and any dependent claims, are also allowable over the cited combination of references.

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[6] Linderborg at column 5, lines 29-53.
[7] Linderborg at Fig. 3.

Accordingly, Applicants respectfully request that the rejection of Claims 1-18 under 35 U.S.C. § 103 be withdrawn.

CONCLUSION

Consequently, in view of the foregoing amendment and remarks, it is respectfully submitted that the present Application, including Claims 1-18, is patently distinguished over the prior art, in condition for allowance, and such action is respectfully requested at an early date.

Respectfully submitted,

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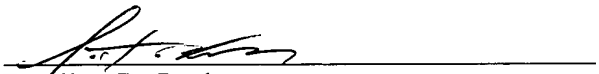

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